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Appl. No. 09/844,281  
Amdt. dated December 4, 2006  
Amendment under 37 CFR 1.116 Expedited Procedure  
Examining Group 1645

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-65. (canceled)

66. (Previously presented) A diagnostic kit comprising an isolated monoclonal antibody, or a fragment thereof, that

- a) binds EAI polypeptide of *B. anthracis* and
- b) specifically binds spores or vegetative cells of *B. anthracis* relative to the spores or vegetative cells of *B. thuringiensis*, *B. cereus*, *B. globigii*, and *B. licheniformis*.

67. (Previously presented) The diagnostic kit of claim 66 further comprising a colloidal particle based lateral flow detection system.

68. (Currently amended) The diagnostic kit of ~~claim 16~~ claim 66 further comprising a detection system selected from a carbon based lateral flow system; a fluorescent based assay system, a chemiluminescent system, an up converting phosphors system, a refractive indexed based detection system, a magnetic bead or latex bead system, and a micro array system.

69. (Previously presented) A diagnostic kit comprising an isolated monoclonal antibody, or a fragment thereof, that

- a) binds EAI polypeptide of *B. anthracis* and
- b) specifically binds spores of *B. anthracis* relative to spores of *B. thuringiensis*, *B. cereus*, *B. globigii*, and *B. licheniformis*; and further comprises a colloidal particle based lateral flow detection system.

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70. (Previously presented) The diagnostic kit of claim 66, wherein said antibody, or a fragment thereof, does not bind *B. cereus*.
71. (Previously presented) The kit of claim 66, wherein said antibody or fragment thereof is *B. anthracis* species specific.
72. (Previously presented) The kit of claim 66, wherein said antibody an IgA, IgD, IgE, IgG, or IgM.
73. (Previously presented) The kit of claim 66, wherein said antibody or fragment thereof binds to SEQ ID NO:1 or an antigenic portion thereof.
74. (Previously presented) The kit of claim 66, wherein said antibody or fragment thereof specifically binds *B. anthracis* spores.
75. (Previously presented) The kit of claim 66, wherein said antibody or fragment thereof specifically binds *B. anthracis* vegetative cells.
76. (Previously presented) The kit of claim 66, wherein said antibody is a murine antibody; a rabbit antibody; a rat antibody; a genetically engineered antibody; a recombinant antibody; a humanized antibody; a polyclonal antibody or an affinity-purified antibody.
77. (Previously presented) The kit of claim 66, wherein said fragment is an Fab or Fv fragment.
78. (Previously presented) The kit of claim 66, wherein said antibody is produced by a hybridoma deposited with ATCC and accorded accession number PTA-2632.
79. (Previously presented) An isolated monoclonal antibody, or fragment thereof, that  
a) binds EA1 polypeptide of *B. anthracis* and

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b) specifically binds spores or vegetative cells of *B. anthracis* relative to the spores or vegetative cells of *B. thuringiensis*, *B. cereus*, *B. globigii*, and *B. licheniformis*.

80. (Previously presented) The antibody or fragment thereof of claim 79, wherein said antibody or fragment thereof is *B. anthracis* species specific.

81. (Previously presented) The antibody of claim 79, wherein said antibody is an IgA, IgD, IgE, IgG, or IgM.

82. (Previously presented) The antibody or fragment thereof of claim 79, wherein said antibody or fragment thereof binds to SEQ ID NO:1 or an antigenic portion thereof.

83. (Previously presented) The antibody or fragment thereof of claim 79, wherein said antibody is a murine antibody; a rabbit antibody; a rat antibody; a genetically engineered antibody; a recombinant antibody; a humanized antibody; a polyclonal antibody; an affinity-purified antibody; or an antibody produced by a hybridoma deposited with ATCC and accorded accession number PTA-2632.

84. (Previously presented) The antibody or fragment thereof of claim 79, wherein said fragment is an Fab or Fv fragment.

85. (Previously presented) A method of detecting *B. anthracis* in a sample, said method comprising  
contacting an antibody, or fragment thereof, according to claim 79 with a sample to form a complex between said antibody, or fragment, and *B. anthracis* in said sample, and  
detecting said complex, which contains *B. anthracis* from said sample.